

CLAIMS

What we claim is:

1. A short interfering RNA (siRNA) molecule that down-regulates expression of hepatitis B virus (HBV) RNA, wherein said siRNA comprises nucleotide sequence complementary to said HBV RNA or a portion thereof.
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2. The siRNA molecule of claim 1, wherein said siRNA molecule is double stranded.
3. The siRNA molecule of claim 2, wherein each strand of said siRNA comprises about 21 nucleotides.
4. The siRNA molecule of claim 2, wherein each strand of said siRNA comprises a 3'-nucleotide overhang.
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5. The siRNA molecule of claim 4, wherein said 3'-nucleotide overhang comprises two nucleotides.
6. The siRNA molecule of claim 1, wherein said siRNA molecule is single stranded.
7. The siRNA molecule of claim 1, wherein said siRNA molecule comprises one or more chemically modified nucleotides.
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8. The siRNA molecule of claim 7, wherein said chemically modified nucleotide is a 2'-O-alkyl nucleotide.
9. The siRNA molecule of claim 8, wherein said 2'-O-alkyl nucleotides is a 2'-O-methyl nucleotide.
- 20 10. The siRNA molecule of claim 8, wherein said 2'-O-alkyl nucleotides is a 2'-O-allyl nucleotide.
11. The siRNA molecule of claim 7, wherein said chemically modified nucleotide is a 2'-deoxy-2'-fluoro nucleotide.
12. The siRNA molecule of claim 7, wherein said chemically modified nucleotide is a 2'-deoxy nucleotide.
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13. The siRNA molecule of claim 7, wherein said chemically modified nucleotide comprises one or more phosphorothioate internucleotide linkages.
14. The siRNA molecule of claim 7, wherein said chemically modified nucleotide is a 2'-O-alkyl nucleotide, 2'-deoxy-2'-fluoro nucleotide, 2'-deoxy nucleotide, phosphorothioate containing nucleotide, or any combination thereof.
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15. The siRNA molecule of claim 7, wherein said siRNA comprises one or more 2'-O-alkyl and one or more 2'-deoxy-2'-fluoro nucleotides.
16. The siRNA molecule of claim 7, wherein said siRNA comprises one or more 2'-deoxy and one or more 2'-deoxy-2'-fluoro nucleotides.
- 10 17. The siRNA molecule of claim 1, wherein said siRNA comprises a terminal cap modification.
18. The siRNA molecule of claim 17, wherein said terminal cap modification comprises an inverted abasic moiety.
19. The siRNA molecule of claim 17, wherein said terminal cap modification is at the 3'-end
15 of said siRNA.
20. The siRNA molecule of claim 1, wherein said siRNA is conjugated to a biologically active molecule.
21. The siRNA molecule of claim 20, wherein said siRNA molecule is conjugated to said biologically active molecule via a biodegradable linker.
- 20 22. The siRNA molecule of claim 20, wherein said biologically active molecule comprises a vitamin.
23. The siRNA molecule of claim 20, wherein said biologically active molecule comprises an antibody.
24. The siRNA molecule of claim 20, wherein said biologically active molecule comprises a
25 hormone.